

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By _____		
							Lead hand / Supervisor Approval Verification _____		
							QC / QA Coordinator Approval _____		

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : 							
Misidentified	☐	Past Due	☐								

Work Order ID 151032

Monday, September 12, 2016 10:20:48 AM

151032

Page 2

Item ID: D5122-1TRN

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Center Support, Upper, Turning Detail

Start Date: 9/6/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 9/12/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00				4	0		DAS 20 9-89 16-09-21
130	Memo	0.01							
Packaging	LOCATION: MAT060								
140	QC21- Final Inspection - Work Order Release	0.00					DAS 21 9-89		SEP 21 2016
140	Memo	0.07							
QC									
Quality Control							DAS 21 9-89		SEP 21 2016

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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Monday, September 12, 2016 10:20:47 AM

Page 1

Work Order ID: 151032

151032

Parent Item: D5122-1TRN

D5122-1TRN

Parent Item Name: Center Support, Upper, Turning Detail

Start Date: 9/6/2016

Required Date: 9/12/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV. A NEW ISSUE JFS 14/07/09 VERIFIED BY: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6104-011		Manufactured	No			100	Each	36.0000	1	4			

D6104-011

17-4 SS Roundbar 6.50"OD

Location

Loc Qty

Loc Code

MAT043

36

139232

1

143414

3

144958

10

145266

10

148652

12

4

DAS
45
9-89

2016-09-19

DQA: _____ Date: _____



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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
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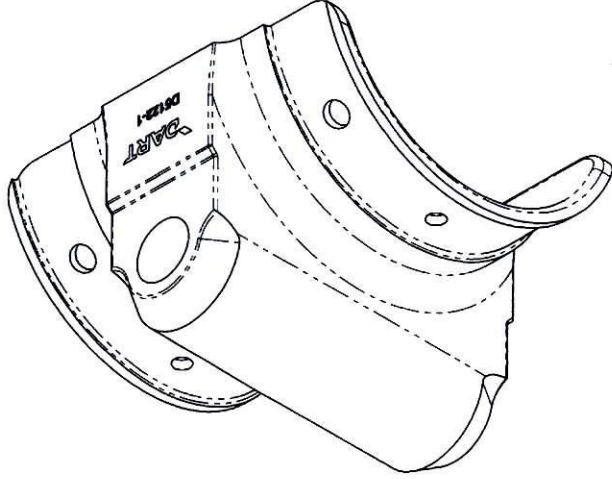
Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
				OTHER : ☐			

- NOTES:
- 1) MATERIAL: MAKE FROM D5122-1-TRN
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENTIFY WITH DART LOGO AND P/N "D5122-1" IN AREA SHOWN
USING 0.125 HIGH X 0.010-0.020 DEEP LETTERING PER DART OSI 044 6.3,
IDENTIFY WITH DART B/N PER DART OSI 044 6.1
 - 7) WEIGHT: 2.13 lbs
 - 8) ALL NON-DIMENSIONED FEATURES DEFINED PER DRAWING FILE "D5122-1-REVA.SLDPRT"

APPROVED

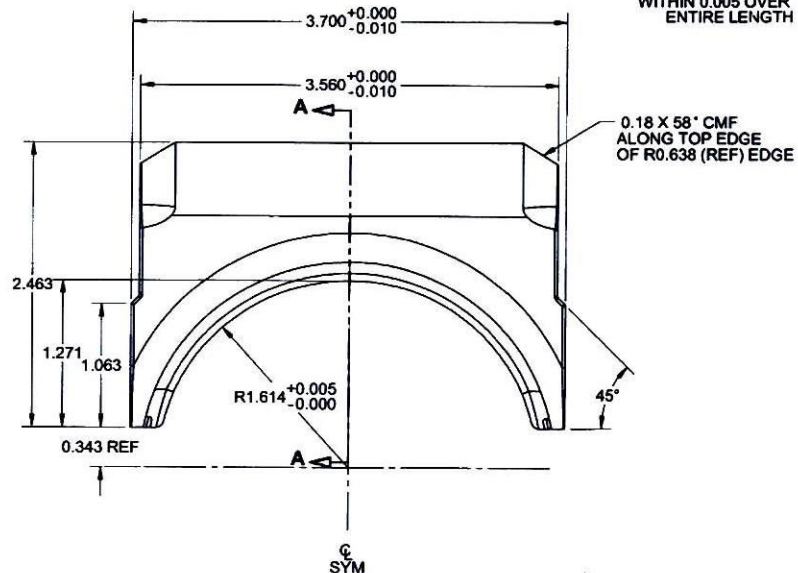
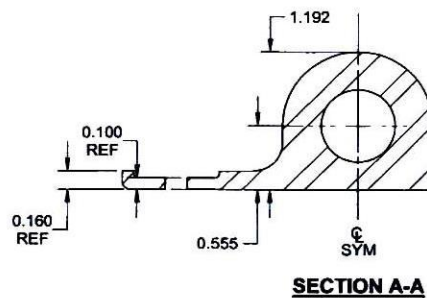
REV.	A	NEW ISSUE
DESCRIPTION		
BY	AP	DATE
		14.06.02
DESIGN	AP	
DRAWN	AP	
CHECKED	CP	
MFG. APPR.	JLM	
APPROVED	MP	
DE APPR.	DS	
DATE 14.06.02		
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TITLE CENTER SUPPORT		
SCALE NTS		
SHEET 1 OF 3		
REV. A		
DRAWING NO. D5122		
DART AEROSPACE LTD		
HAWKESBURY, ONTARIO, CANADA		

D5122-1 CENTER SUPPORT



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 151032 M5
16-09-13

RELEASED
2014-08-25



HOLES PERPENDICULAR
WITHIN 0.005 OVER
ENTIRE LENGTH

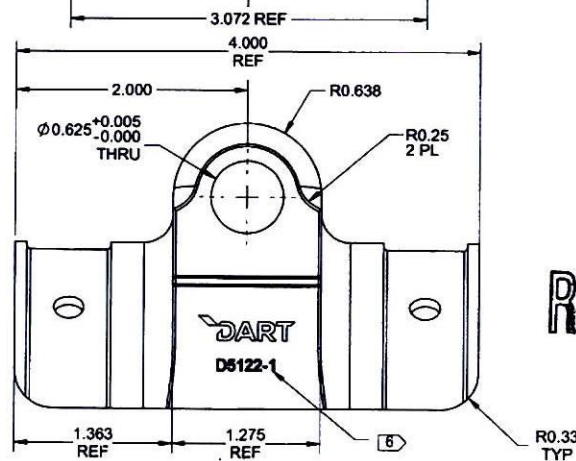
R0.063
AROUND INSIDE EDGE

HOLES PERPENDICULAR
WITHIN 0.005 OVER
ENTIRE LENGTH

0.464 REF

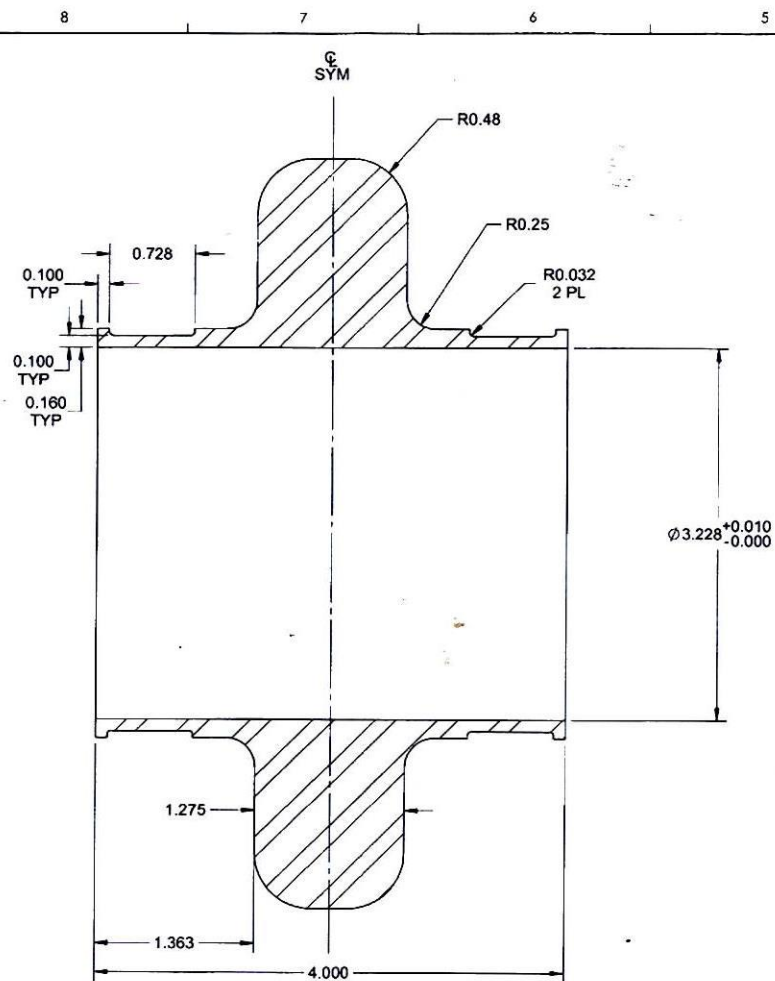
OPTIONAL $\phi 0.261$ REF
TOOLING HOLE,
LOCATED AT 45° TO VERTICAL
4 PL

OPTIONAL $\phi 0.189$ REF
TOOLING HOLE,
2 PL

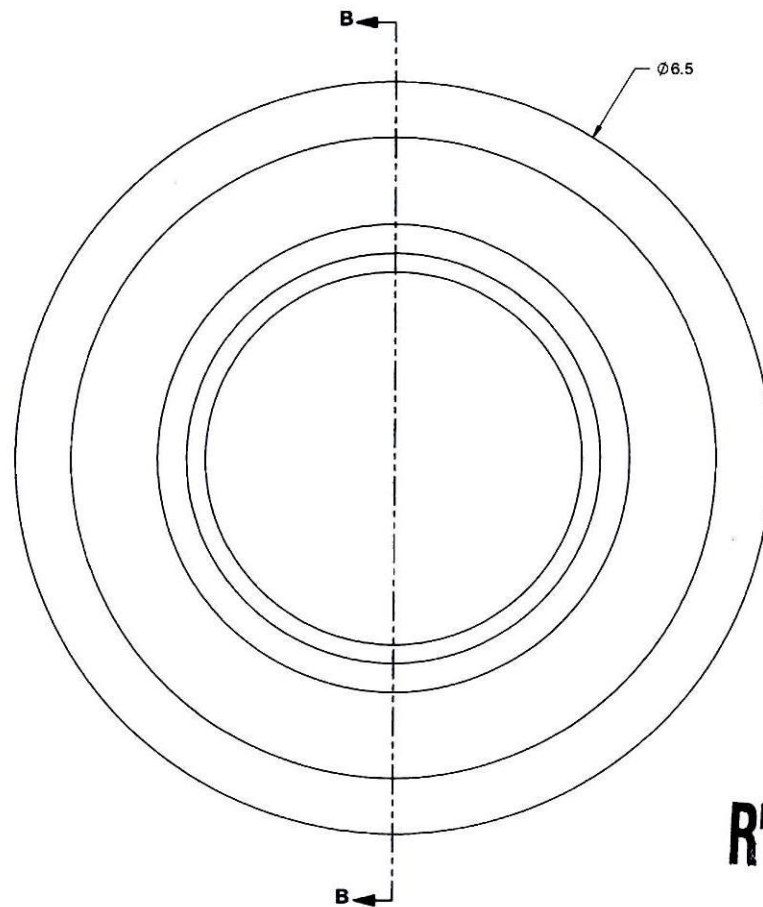


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2014-08-25

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	CHECKED	CP	DRAWING NO.	REV. A
	MFG. APPR.	JLM	D5122	SHEET 2 OF 3
	APPROVED	MP	TITLE	SCALE
	DE APPR.	DS	CENTER SUPPORT	NTS
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SECTION B-B



D5122-1TRN CENTER SUPPORT

NOTES:

- 1) MATERIAL: 17-4PH/S17400/TYPE 630 ROUND BAR PER AMS 5643 / ASTM A564, REF DART SPEC. M17-4-R H900 OR H925 CONDITION, MIN UTS = 170 KSI (38 HRc)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 11.25 lbs

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DESIGN	AP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	CP	DRAWING NO.	REV. A
MFG. APPR.	JLM	D5122	SHEET 3 OF 3
APPROVED	MP	TITLE	SCALE
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